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Claims

Sub B1
1. Mobile agent system (1) for a communication unit (5, 6, 7) of a communication system, with

10 at least one mobile agent (3) comprising an allocated agent policy (8), in which migration parameters of the respective mobile agent are defined, migration control means (16) for controlling the migration behavior of a mobile agent (3) in the communication system on the basis of a current migration policy of the mobile agent (3) and current parameters of the communication system.

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2. Mobile agent system (1) according to claim 1,

characterized by

policy managing means (17) for storing a system policy (11), in which migration behavior parameters for mobile agents (3) of the mobile agent system (1) are defined,

20 and

policy control means (18) for selecting the current migration policy of a mobile agent (3) on the basis of the allocated agent policy (8) of the mobile agent (3) and the system policy (11).

25 3. Mobile agent system (1) according to claim 2,

characterized in,

that the system policy (11) is a default system policy (12) or an agent type specific policy (13).

4. Mobile agent system (1) according to claim 2 ~~or 3~~,

5 characterized in,

that the policy control means (18) selects the current migration policy of a mobile agent (3) depending on the type of the provided policies.

5. Mobile agent system (1) according to claim 2 ~~or 3~~,

10 characterized in,

that the policy control means (18) selects the current migration policy of a mobile agent (3) depending on additional priority parameters of the provided policies.

6. Mobile agent system (1) according to claim 2 ~~or 3~~,

15 characterized in,

that the policy control means (18) selects the current migration policy of a mobile agent (3) depending on weighting parameters of the provided policies.

7. Mobile agent system (1) according to claim 2 ~~one of the claims 2 to 6~~,

20 characterized by

user input means (21) for inputting a migration policy which is taken as the current migration policy for a mobile agent (3), whereby said policy control means (18) always returns to a normal mode for the next migration policy to be selected.

25 8. Mobile agent system (1) according to claim 2 ~~one of the claims 2 to 7~~,

characterized by

user input means (21) for inputting a migration mode for the mobile agent system (1), whereby said input migration mode is kept by said policy control means (18) until a new migration mode is input.

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9. Mobile agent system (1) according to ^{claim 1}~~one-of-the-claims-1-to-8~~,

characterized by

user operation means (22) for changing the allocated agent policy (8) of a mobile agent (3), and/or the system policy (11).

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10. Mobile agent system (1) according to ^{claim 1}~~one-of-the-claims-1-to-9~~,

characterized by

an application programming interface (13) connected to the migration control means (16) for retrieving the current parameters of the communication system.

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11. Mobile agent system (1) according to ^{claim 1}~~one-of-the-claims-1-to-10~~,

characterized in,

that said migration control means (16) decides on the basis of a comparison of the current migration policy of a mobile agent (3) and the current parameters of the communication system, if the migration of the mobile agent (3) is allowed, suspended or rejected.

12. Method for controlling a mobile agent system (1) in a communication unit of a communication system, whereby

the mobile agent system (1) includes at least one mobile agent (3) comprising an allocated agent policy (8), in which migration parameters of the respective mobile agent (3) are defined, and

the migration behavior of a mobile agent (3) in the communication system is controlled
5 on the basis of a current migration policy of the mobile agent (3) and current parameters of the communication system.

13. Method for controlling a mobile agent system (1) according to claim 12,

characterized by

10 storing a system policy (11), in which migration behavior parameters for mobile agents (3) of the mobile agent system (1) are defined, and
selecting the current migration policy of a mobile agent (3) on the basis of the allocated agent policy (8) of the mobile agent (3) and the system policy (11).

15 14. Method for controlling a mobile agent system (1) according to claim 13,

characterized in,

that said system policy (11) is a default system policy (12) or an agent type specific policy (13).

15. Method for controlling a mobile agent system (1) according to claim 12, 13 or 14,

characterized in,

that current migration policy of a mobile agent (3) is selected depending on the type of the provided policies.

16. Method for controlling a mobile agent system (1) according to ~~one of the claims 12~~

~~to 15,~~

characterized in,

- 5 that the current migration policy of a mobile agent (3) is selected depending on additional priority parameters of the provided policies.

17. Method for controlling a mobile agent system (1) according to ~~one of the claims 12~~

~~to 16,~~

10 **characterized in,**

that the current migration policy of a mobile agent (3) is selected depending on weighting parameters of the provided policies.

18. Method for controlling a mobile agent system (1) according to ~~one of the claims 12~~

15 ~~to 17,~~

characterized in,

that upon inputting a migration policy which is taken as the current migration policy for a mobile agent (3), the agent system (1) always returns to a normal mode for the next migration policy to be selected.

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19. Method for controlling a mobile agent system (1) according to ~~one of the claims 12~~

~~to 18,~~

characterized in,

- 25 that upon inputting a migration mode for the mobile agent system (1), said input migration mode is kept until a new migration mode is input.

20. Method for controlling a mobile agent system (1) according to ~~one of the claims 12 to 19,~~

characterized by

- 5 providing a user operation means (22) for changing the allocated agent policy (8) of a mobile agent (3) and/or the system policy (11).

21. Method for controlling a mobile agent system (1) according to ~~one of the claims 12 to 20,~~

10 **characterized by**

retrieving the current parameters of the communication system over an application programming interface (23).

22. Method for controlling a mobile agent system (1) according to ~~one of the claims 12 to 21,~~

characterized by

deciding on the basis of a comparison of the current migration policy of a mobile agent (3) and the current parameters of the communication system, if the migration of the mobile agent (3) is allowed, suspended or rejected.

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